NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE SPECIFICATION

POND SEALING OR LINING – FLEXIBLE MEMBRANE
(no.)
CODE 521A

SCOPE

This specification covers the installation of a flexible membrane. The installation shall be in accordance with the construction plans and these specifications.

MEMBRANE MATERIALS

Flexible membrane materials shall be of a quality that equals or exceeds the physical requirements as listed in plans.

All lining material shall be free of damage or defect. Each package delivered to the job site shall be marked with the name of the material, the manufacturer's name or symbol, the quantity therein, and the thickness or weight of the material.

SUBGRADE PREPARATION

The area to be lined shall be drained and allowed to dry until the surface is firm and will support the men and equipment that must travel over it during installation of the lining.

The foundation area for flexible membrane linings shall be smooth and free of projections that might damage the lining. Stumps and roots shall be removed. Rocks, hard clods, and other such material shall be removed, or shall be rolled so as to provide a smooth surface.
If the subgrade is coarse-textured and open after preparing and compacting, or in rocky soils, a two-inch cushion layer of sand, or fine grained soil such as silty clay or silt should be applied around the pipe.

Where needed an effective sterilant shall be applied to the subgrade at a rate recommended by the manufacturer.

PLACING THE LINING - EXPOSED LININGS

Membranes shall be carefully spread over the subgrade so they lie in a relaxed state.

All field splices shall be made in accordance with the manufacturer's recommended technique, using materials furnished for the purpose. The joints shall be watertight and maintain its integrity through the expected life of the lining.

Approximately 8 inches of the top of the lining shall be placed in the anchor trench and anchored with compacted backfill.

PLACING THE LINING - BURIED LININGS

Membranes shall be carefully spread over the subgrade so they lie in a relaxed state. Polyethylene film requires about 5 percent slack for satisfactory results.

All field splices shall be made in accordance with the manufacturer's recommended technique, using materials furnished for the purpose. The joints shall be watertight and maintain their integrity through the expected life of the lining.

Approximately 8 inches of the top of the lining shall be placed in the anchor trench and anchored with compacted backfill.

For covered membranes, the material to be used for protective cover shall be free of large clods, sharp rocks, sticks, and other objects that would puncture the lining. The cover shall be placed to the specified depth without damage to the membrane.

WORKMANSHIP

All construction shall be performed in a workmanlike manner, and the job site shall present a neat appearance when completed.

CONSTRUCTION OPERATIONS

Construction operations shall be carried out in such a manner and sequence that erosion and air and water pollution are minimized and held within legal limits.

The owner, operator, contractor or other persons will conduct all work and operations in accordance with proper safety codes for the type of construction being performed with due regards to the safety of all persons and property.

SAFETY

Land owners or operators, sponsoring organizations, and contractors shall be liable for damage to utilities and damage resulting from disruption of service caused by construction activities. The Natural Resources Conservation Service makes no representation on the existence or non-existence of any utilities. Absence of utilities on the drawings is not assurance that no utilities are present at the site.

It is the responsibility of the land owner or operator to determine if there are buried or overhead utilities in the vicinity of the proposed work. They should take proper procedures to insure that the utilities shall not be jeopardized and that equipment operators and others will not be injured during construction operations.